



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/816,657	04/02/2004	Thomas A. Follo	6579-0439	9671
49698 7590 02/12/2007 MICHAUD-DUFFY GROUP LLP 306 INDUSTRIAL PARK ROAD SUITE 206 MIDDLETOWN, CT 06457			EXAMINER LANDRUM, EDWARD F	
			ART UNIT 3724	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		02/12/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/816,657

Applicant(s)

FOLLO ET AL.

Examiner

Edward F. Landrum

Art Unit

3724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 4, 5, and 7-32 is/are pending in the application.
- 4a) Of the above claim(s) 5, 7, 9, 11-22, 25-27, and 32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 4, 8, 10, 23, 24 and 28-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: Foreign Patent.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 1 4, 8, 10, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coffin '982 (European Patent Application No. 1252982A1).

Coffin '982 teaches (see Figures 4-6E) a razor cartridge comprising a guard (18) and a cap (28). At least four razor blades (22) are positioned between the guard (18) and cap (24). Each blade has a cutting edge (24) and an exposure relative to the two skin engaging surfaces (34 on the guard, 32 on the cap). A tangent line (36) extends between the contact surfaces (34 and 32). Coffin '982 further teaches that the blades can be positioned in any number of ways until an optimal design or "feel" is found for a given situation (Paragraphs 7-11 and 23), including the forward most blade having a negative exposure, the two interior razor blades having exposures greater than the forward most blade, thereby making the overall exposure of the interior blades greater than the exposure of the first blade, and the last razor blade having a positive exposure. Lastly, Coffin '982 teaches (Col. 6, lines 1-8) teaches the spacing of the razor blades decreasing from forward to aft in the cartridge.

Coffin '982 does not explicitly state that the overall exposure of each of the four razor blades is an average of their individual exposures nor that an exposure line, which

Art Unit: 3724

is perpendicular to the tangent line, is used to measure the individual exposure. The measuring and determining of individual and overall exposures though is inherent in Coffin '982 because Coffin '982 teaches that changing the individual exposure of each blade will affect the overall exposure of the apparatus (see Paragraphs 7-11).

Coffin '982 teaches all of the elements of the current invention as stated above except the overall exposure of the interior razor blades being substantially the same, the overall exposure of the last razor blade being not less than the overall exposures of the interior blades, and the blades being positioned so that the first blade is negative, the overall exposure of the interior blades being substantially the same, and last blade being positive.

Although Coffin '982 does not specifically recite the claimed overall exposures Coffin '982 does teach that it is an obvious design choice to change the exposures of each blade to create different "feels" or tune the razor to specific applications (Paragraph 7). Therefore, the examiner takes official notice that it would have been an obvious design choice to a person of ordinary skill in the art to make the first blade negative, the overall exposure of the interior razor blades substantially equal, and the last blade's exposure positive and not less than the overall exposure of the interior blades, because discovering the optimal exposure of each blade as related to every other blade and the cartridge as a whole would have been a mere design consideration based on the "feel" wanted by a user for a particular shaving function, or the tuning of a razor for a specific application. Such a modification would have involved only a routine skill in the art to accommodate a user's requirements. It has been held that where the

Art Unit: 3724

general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges of parts would only involve routine skill in the art.

3. Claims 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coffin '982 in view of Gilder et al (U.S Patent No. 6,212,777), hereinafter Gilder.

Coffin '982 teaches all of the elements of the current invention as stated above except for specific ranges for the overall exposure of each blade. The first blade being between  $-0.05\text{mm}$  and  $+0.03\text{ mm}$ , and the interior blades being between  $-0.04\text{ mm}$  and  $+0.04\text{ mm}$ .

Gilder teaches an acceptable range of exposures for razor blades that are increasing in exposure is between  $-0.2\text{ mm}$  and  $+0.2\text{ mm}$  (Col. 4, lines 5-14).

It would have been obvious to have modified Coffin '982 to incorporate the teachings of Gilder to find optimal ranges or positions as related to the overall exposure of each blade for the purpose of preventing irritation and increasing the life of each blade by allowing each blade to aid in the cutting process instead of a single blade performing most of a cutting operation. Furthermore, it would have been an obvious matter of design choice to a person of ordinary skill in the art to arrange the blades within specific parameters related to the overall exposure of each individual blade because discovering a workable range for the exposure of each blade would have been a mere design consideration based on the desired cutting depth of each blade as related to the feel of the device. Such a modification would have only involved routine skill in the art to accommodate any user based requirements. It has been held that

Art Unit: 3724

where the general conditions of a claim are disclosed in the prior art, discovering the optimal workable ranges involves only routine skill in the art.

4. Claims 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coffin '982 in view of Trotta (U.S Patent No. 4,407,067).

Coffin '982 teaches all of the elements of the current invention as stated above except the largest intrablade span not being greater than 1.65 mm and the smallest intrablade span not being greater than 1.2 mm.

Trotta teaches (Col. 4, lines 67-68) intrablade spans being preferably between 0.03 and 0.08 inches, which is between .762 and 2.032 mm.

It would have been obvious to have modified Coffin '982 to incorporate the teachings of Trotta to incorporate intrablade spans that decreased between an optimum range for the purpose of improving comfort and increasing performance by preventing the skin of a user from becoming un-stretched while cutting, potentially nicking the user or decreasing the performance of the shaver. Furthermore, it would have been an obvious matter of design choice to a person of ordinary skill in the art to arrange the blades within specific parameters related to the span between each blade because discovering a workable range for span between each blade would have been a mere design consideration based on a user's comfort and blade performance requirements. Such a modification would have only involved routine skill in the art to accommodate any user based requirements. It has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimal workable ranges involves only routine skill in the art.

Art Unit: 3724

5. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Coffin '982 in view of Coffin '665 (U.S Patent No. 5,365,665).

Coffin '982 teaches all of the elements of the current invention as stated above except wash through openings defined by a rear surface of the razor cartridge and a longitudinal wedge shaped surface aligned with the openings.

Coffin '665 teaches (see Figures 4 and 5) the use of a plurality of openings (12) in a rear wall of a shaving cartridge and a longitudinal wedge shaped surface (10) aligned with the wash through openings for the purpose of optimizing cleaning efforts by preventing soap residue from gathering inside the housing.

It would have been obvious to have modified Coffin '982 to incorporate the teachings of Coffin '665 to add a plurality of wash-through openings and a wedge shaped surface into the rear of the of the shaving cartridge for the purpose of making the shaving unit easier to clean thereby making the shaving cartridge last longer, as well as cut better by removing an debris on the blades that could potentially hinder cutting performance.

### ***Response to Arguments***

6. Applicant's arguments filed 12/11/2006 have been fully considered but they are not persuasive.

Coffin '982 does teach that it is an obvious design choice to change the exposure of the blades in a razor cartridge to create a specific feel, and therefore teaches that one of ordinary skill in the art would be able to modify Coffin '982 to come up with the present invention without undue experimentation. Furthermore, other references cited

Art Unit: 3724

above or below, Gilder, Prochaska, Walsh, and Coffin also teach it is old and well known in the cutting art to change the exposure of blades within a razor cartridge.

***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Please see the Notice of References Cited for a list of pertinent prior art.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward F. Landrum whose telephone number is 571-272-5567. The examiner can normally be reached on Monday-Friday 8-4:30.




Art Unit: 3724

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on 571-272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

EFL  
1/25/2007



BOYER D. ASHLEY  
SUPERVISORY PATENT EXAMINER